

Attorney Docket: AT002

Amendments to the Specification:

Please amend the Abstract in the following manner:

ABSTRACT

~~The present invention entails a plant/seedling/plug growing tray/container plants and their matrix. A system for transferring and transplanting systems and methods plants from a which includes plant supply trays/containers with a plurality of individual plant/seedling/plug cells/pots includes a first table having a plurality of matrix openings for holding the plant supply tray, where one or more plants are removed from the tray via the matrix openings. The first table also includes an indexing frame that positions the plant supply tray such that the one or more plants from the plant supply tray are aligned with the plurality of matrix openings. The system also includes a second table that holds a plant receiving area, a supporting frame that holds and aligns the first and second tables relative to one another, and a plant removal mechanism for removing the one or more plants from the plant supply tray. The supporting frame positions the first table above the second table such that the supply tray is located above the plant receiving area and the one or more plants removed from the supply tray can be transferred directly to the plant receiving area on the second table via the plurality of matrix openings in the first table. and manual, mechanical, pneumatic, hydraulic, and/or electrical systems that are operative to induce plants to a planting area or receptacle such as flats, pots, containers, or the field. The trays/containers also serve as a plant supply cartridges for air-pruned plants/seedlings/plugs so that they can be manually, semi-automatically or automatically removed from the open tray cell top or bottom for matrix transfer and transplanting, using manual, mechanical, pneumatic, hydraulic and/or electrical means. In the embodiment disclosed herein a self-contained~~

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~~system controls all operations including up and down motion of upper and lower indexing tables, accurate indexing and matching of trays/containers and flats/pots, dibbling of growth media, pushing or pulling of plants/seedlings/plugs from tray/container cells/pots, to achieve the plant transfer and transplanting. The system has the capability of transferring and transplanting a set of multiple plants/seedlings/plugs simultaneously at a time in a matrix formation, and then to shift a supply trays/containers to a subsequent position and then to transfer and transplant next set of multiple plants/seedling/plugs. In addition, the matrix plant transferring and transplanting methods of the present invention is specifically designed to provide several matrix patterns from a supply tray and adapted such that it can be utilized both in the dry or paddy field, and greenhouses.~~